outcomes, 1 duplicate publication, 3 review articles, and 4 articles that did not differentiate nocturia from other urinary symptoms. A total of 14 studies were included in the analysis. Six major constructs of sleep were used. Five validated measurement tools were utilized by eight different studies. Nocturia was associated with an increase in sleep disturbance, increase in napping, increase in insomnia risk, and overall decrease of sleep quality, but the lack of a consistent outcome measures prevented quantitative synthesis. **CONCLUSIONS:** Nocturia is associated with an increase risk of falls and fractures. It is also associated with a decrease in sleep quality and increase in sleep disturbance.

URINARY/KIDNEY DISORDERS – Cost Studies

PUK9
ESTIMATION OF PREVALENCE AND ECONOMIC BURDEN OF ACUTE KIDNEY INJURY FROM A MANAGED CARE DATABASE IN THE UNITED STATES

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OBJECTIVES: Widely disparate definitions of renal injury or failure have historically been used in epidemiologic studies, not always in accordance with the RIFLE (risk, injury and failure) criteria. This has resulted in a wide range of incidence rates in the published literature. The clinical epidemiology analysis of AKI estimates an incidence rate of 200/100,000 in the all-age population and 25/100,000 in the all-age population receiving renal replacement therapy. Our objective was to estimate the prevalence and examine the related health care burden of acute kidney injury (AKI). **METHODS:** Patients diagnosed with AKI in 2009 were identified in the OptumInsight Impact database. Projections for the US Population were based on the age-adjusted prevalence per 100,000 for patients with at least one paid claim that specified an AKI diagnosis during 2009. A sample matched for age and gender was created to compare health care costs. **RESULTS:** Based on the age-adjusted prevalence in the OptumInsight Impact database of 480 per 100,000 patients in 2009, the projection to the US population was 1,473,232 individuals with AKI; 40% of these patients were exposed to contrast media; nearly 30% had cardiovascular (CV) surgery, and over 20% of patients also had major digestive surgery. Mean annual costs in 2009 were $64,594, including outpatient, inpatient, ER, and pharmacy (N=116,994 AKI patients). This included costs specifically related to AKI ($19,115). Among AKI patients that had dialysis, the mean annual procedure-related costs ($44,065, N=10,879) were comparable to all patients receiving dialysis ($46,884). However, AKI patients typically demonstrated substantially higher procedure-related costs for major digestive surgery, major CV surgery, and contrast media exposure, in comparison to all patients undergoing each of these procedures. **CONCLUSIONS:** AKI prevalence was higher than expected, and was associated with a high economic burden as demonstrated by procedure-related costs. To understand the pattern of risk, longitudinal examination is needed.

PUK10
COST SAVINGS OF PERITONEAL DIALYSIS VERSUS CONVENTIONAL IN-CENTER HEMODIALYSIS UNDER MEDICARE BUNDLED PAYMENT SYSTEM

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OBJECTIVES: The increasing number of patients developing end-stage renal disease (ESRD) is driving up the costs of care dramatically. Effective January 1, 2011, Medicare implemented a bundled prospective payment system (PPS). This study investigates the five-year budget impact on Medicare under the new PPS of changing the distribution of patients undergoing peritoneal dialysis (PD) and in-center hemodialysis (ICHD). **METHODS:** We constructed an Excel®-based budget impact model to assess dialysis-associated Medicare costs when shifting patients between PD and ICHD. The model incorporates the current modality distribution and accounts for Medicare dialysis payments (including start-up costs), oral drug costs, and the costs and probabilities of adverse events including access failure, access infection, pneumonia, and cardiovascular events. Data from the United States Renal Data System (USRDS) were used to estimate the US Medicare dialysis patient population for the next five years. The baseline scenario assumed a stable distribution of PD (8.0%) and ICHD (90.5%) over five years; the remaining 1.5% is assumed to practice home hemodialysis. Alternative scenarios assumed the prevalence of PD decreased by 0.5% or increased by 0.5% or 1% each year for five years, with commensurate changes in ICHD. Differences among scenarios were evaluated in terms of costs to Medicare and numbers of adverse events. **RESULTS:** Under the bundled PPS, an increase in the prevalent PD population from 8.0% in 2012 to 10% or 12% in 2016 is predicted to result in five-year cumulative savings for Medicare of $37 million and $74 million, respectively. If the prevalent PD population were to decrease from 8.0% in 2012 to 6.0% by 2016, the total Medicare payment for dialysis patients would increase by $37 million over 5 years **CONCLUSIONS:** Under Medicare bundled PPS, shifting patients from ICHD to PD could help Medicare reduce dialysis-associated costs.

PUK11
EXAMINING THE DOSING PATTERNS AND COSTS OF EPOETIN ALFA AND DARBEPOETIN ALFA AMONG HOSPITAL OUTPATIENTS WITH CHRONIC KIDNEY DISEASE NOT ON DIALYSIS

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OBJECTIVES: To compare retrospective data of erythropoiesis-stimulating agent (ESA) dosing patterns and costs among hospital outpatients with dialysis chronic kidney disease (CKD) not on dialysis. **METHODS:** Electronic records from the Premier hospital database (2006Q1-2011Q1) were used to identify outpatients that had a diagnosis for CKD and received epoetin alfa (EPO) or darbepoetin alfa (DARB). Exclusion criteria were: age <18 years, receipt of renal dialysis, a diagnosis of cancer or myelodysplastic syndrome, receipt of chemotherapy, or receipt of both ESAs. The observation period consisted of the outpatient continuous ESA episode, defined as the period from first to last outpatient visit with ESA use without a gap of more than one calendar month between ESA visits. The ESA dose ratio (Units EPO: mcg DARB) was calculated using the mean cumulative dose of EPO and DARB. Treatment costs for both ESA groups were determined using cumulative dose and published July 2011 wholesale acquisition costs. **RESULTS:** A total of 9770 outpatient ESA episodes (EPO: 5398; DARB: 4,72) were identified. EPO and DARB groups had a similar mean age (73.1 vs. 73.5 years, respectively; P=0.104) and similar proportion of females (59.4% vs. 59.0%, respectively; P<0.663). EPO group had a longer duration of outpatient episode (3.8 months vs. 3.4 months, P<0.001) than the DARB group. The mean cumulative dose was EPO 174,010 Units and DARB 622 mcg, which resulted in a dose ratio (Units EPO: mcg DARB) of 280:1. Corresponding mean ESA treatment costs were higher for DARB than for EPO (EPO: $2,819 vs. DARB: $3,484, P<0.001). **CONCLUSIONS:** In this analysis of non-dialysis CKD hospital outpatient records, a dose ratio (Units EPO: mcg DARB) of 280:1 was observed. Mean ESA treatment costs were found to be approximately 24% higher for the DARB group as compared to the EPO group.

PUK12
EXAMINING THE DOSING PATTERNS AND COSTS OF EPOETIN ALFA AND DARBEPOETIN ALFA AMONG HOSPITAL INPATIENTS WITH CHRONIC KIDNEY DISEASE NOT ON DIALYSIS

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OBJECTIVES: To compare retrospective data of erythropoiesis-stimulating agent (ESA) dosing patterns and costs among hospital inpatients with chronic kidney disease (CKD) not on dialysis. **METHODS:** Electronic records from the Premier Hospital Database (2006Q1-2011Q1) were used to identify inpatients that had a diagnosis for CKD and had received epoetin alfa (EPO) or darbepoetin alfa (DARB). Exclusion criteria were: <18 years, receipt of renal dialysis, a diagnosis of cancer or myelodysplastic syndrome, receipt of chemotherapy, or receipt of both ESAs. The observation period consisted of the hospital inpatient stay. The dose only ratio (Units EPO: mcg DARB) was calculated using the mean cumulative dose of EPO and DARB. Treatment costs for both ESA groups were determined using cumulative dose and published July 2011 wholesale acquisition costs. **RESULTS:** A total of 135,432 inpatient stays (EPO: 104,195; DARB: 31,237) were identified. The EPO group was slightly younger than the DARB group (69.5 vs. 70.0 years, respectively; P<0.001), and had a higher proportion of females (52.1% vs. 51.2%, respectively; P=0.022). Length of stay (LOS) was similar with mean LOS of EPO=9.3 vs. DARB=9.2 days, (P=0.084). The mean cumulative dose was EPO 35,355 Units and DARB 128 mcg, which resulted in a dose only ratio (Units EPO: mcg DARB) of 276:1. Corresponding mean ESA treatment costs were higher for DARB than for EPO (EPO: $573 vs. DARB: $718; P<0.001). **CONCLUSIONS:** In this analysis of non-dialysis CKD inpatient records, a dose only ratio (Units EPO: mcg DARB) of 276:1 was observed. Mean ESA treatment costs were found to be approximately 25% higher for the DARB group versus EPO group despite similar length of stay between the groups.

PUK13
TRENDS IN RATE AND COST OF HOSPITALIZATIONS DUE TO CHRONIC KIDNEY DISEASE (CKD) IN THE UNITED STATES

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OBJECTIVES: To understand the trends in rate and cost of hospitalizations due to Chronic Kidney Disease (CKD) in the United States. **METHODS:** We analyzed last five years of hospitalizations with ICD-9 diagnosis codes of CKD and End Stage Renal Disease (ESRD). The annual number of hospitalizations for specific diagnosis were obtained from AHRQ's National In-patient Sample (NIS) databases of 2005-2009. Data were also analyzed for length of stay (LOS), charges and cost of hospitalization. **RESULTS:** During last five years the number of hospitalizations with diagnosis of CKD and ESRD have increased 4.1 and 4.6 fold, respectively. In 2009, an estimated 1,634,422 and 931,641 hospitalizations were with diagnosis of CKD and ESRD, respectively. The mean LOS for patients with CKD has increased from 4.9 to 5.5 days, during 2005-2009. The mean LOS for patients with ESRD has remained steady at ~6 days during 2005-2009. The cost of hospitalization with diagnosis of CKD has increased 31% during 2005-2009. The cost of hospitalization with diagnosis of ESRD has increased 21% during 2005-2009. In 2009, the mean cost of hospitalization for patients with CKD and ESRD were $11,209 and $21,358, respectively. **CONCLUSIONS:** Hospitalizations due to CKD and ESRD have significantly increased during last five years. There is a need for prevention, treatment and disease management programs to lower the medical and socioeconomic burden of this disease.

PUK14
COST ANALYSIS OF ANEMIA MANAGEMENT IN HEMODIALYSIS PATIENTS IN 2009: A FRENCH MULTICENTER RETROSPECTIVE STUDY

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